



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

FISH & RICHARDSON P.C.
P.O. Box 1022
MINNEAPOLIS, MN 55440-1022

MAILED

MAR 24 2010

OFFICE OF PETITIONS

In re Patent of Estrada	:	DECISION ON REQUEST
Patent No. 7,574,335	:	FOR RECONSIDERATION OF
Issue Date: August 11, 2009	:	PATENT TERM ADJUSTMENT
Application No. 10/777,566	:	AND NOTICE OF INTENT TO
Filing Date: February 11, 2004	:	ISSUE CERTIFICATE OF
Atty. Docket No. 07844-0620001/P351N	:	CORRECTION

This is a decision on the petition filed on October 6, 2009, which is being treated as a petition under 37 C.F.R. § 1.705(d) requesting that the patent term adjustment indicated on the patent be corrected to indicate that the term of the patent is extended or adjusted by one thousand one hundred twelve (1,112) days.

The petition to correct the patent term adjustment indicated on the above-identified patent to indicate that the term of the above-identified patent is extended or adjusted by one thousand one hundred twelve (1,112) days is **GRANTED to the extent indicated herein.**

As the period from the filing date of the request for continued examination (RCE) to the issue date of the patent is not included in the period of delay under 35 U.S.C. § 154(b)(1)(B), the over three year period began on February 12, 2007, and ended on May 26, 2008, *the day before* the RCE was filed, and is 470 (not 471) days. See 35 U.S.C. § 154(b)(1)(B)(i). As such, the patent term adjustment is 1,111 days, not 1,112 days.

The Office will *sua sponte* issue a certificate of correction. Pursuant to 37 C.F.R. § 1.322, the Office will not issue a certificate of correction without first providing assignee or patentee an opportunity to be heard. Accordingly, Patentee is given **one (1) month or thirty (30) days**, whichever is longer, from the mail date of this decision to respond. No extensions of time will be granted under 37 C.F.R. § 1.136.

The Office acknowledges submission of the \$200.00 fee set forth in 37 C.F.R. § 1.18(e). No additional fees are required.

The application is being forwarded to the Certificates of Correction Branch for issuance of a certificate of correction. The Office will issue a certificate of correction indicating that the term of the patent is extended or adjusted by one thousand one hundred eleven (1,111) days.

Telephone inquiries specific to this decision should be directed to Senior Petitions Attorney Steven Brantley at (571) 272-3203.

A handwritten signature in black ink, appearing to read 'Anthony Knight', with a stylized flourish at the end.

Anthony Knight
Supervisor
Office of Petitions

Enclosure: Copy of DRAFT Certificate of Correction

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO. : 7,574,335 B1

ISSUE DATE : August 11, 2009

DRAFT

INVENTOR(S) : Estrada

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the cover page,

[*] Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 698 days.

Delete the phrase "by 698 days" and insert - by 1111 days--



US007574335B1

(12) **United States Patent**
Estrada

(10) **Patent No.:** **US 7,574,335 B1**
(45) **Date of Patent:** **Aug. 11, 2009**

(54) **MODELLING PIECE-WISE CONTINUOUS
TRANSFER FUNCTIONS FOR DIGITAL
IMAGE PROCESSING**

(75) **Inventor:** **James J. Estrada, San Jose, CA (US)**

(73) **Assignee:** **Adobe Systems Incorporated, San Jose,
CA (US)**

(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 698 days.

(21) **Appl. No.:** **10/777,566**

(22) **Filed:** **Feb. 11, 2004**

(51) **Int. Cl.**

G06F 7/60 (2006.01)
G06F 17/10 (2006.01)
G06F 17/00 (2006.01)
G06F 17/11 (2006.01)
G06F 17/15 (2006.01)
G06F 17/17 (2006.01)
G03F 3/08 (2006.01)
G03F 3/00 (2006.01)
G06F 11/00 (2006.01)
G06E 1/04 (2006.01)
G06E 1/00 (2006.01)

(52) **U.S. Cl.** 703/2; 708/530; 708/533;
708/540; 358/518; 358/519; 382/167

(58) **Field of Classification Search** 348/229.1;
708/512, 530, 533, 540; 703/6, 2; 382/167;
358/1.9, 520, 518-519; 345/589-591, 600,
345/603-604

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,969,045 A * 11/1990 Haruki et al. 348/229.1

5,087,966 A 2/1992 Harradine
5,132,796 A 7/1992 Topper et al.
5,255,093 A 10/1993 Topper et al.
5,381,349 A * 1/1995 Winter et al. 382/167
5,398,076 A * 3/1995 Lum et al. 348/676
5,694,484 A 12/1997 Cottrell et al.
5,710,871 A 1/1998 Tadenuma et al.
5,790,707 A 8/1998 Tanaka et al.
6,076,964 A * 6/2000 Wu et al. 374/141
6,157,735 A * 12/2000 Holub 382/167
6,535,255 B2 * 3/2003 Motonakano et al. 348/675
6,771,839 B2 * 8/2004 Westerman 382/274
6,944,304 B1 * 9/2005 Dance et al. 381/94.7
7,076,119 B2 * 7/2006 Takemoto 382/312
2002/0005911 A1 * 1/2002 Motonakano et al. 348/675
2002/0067435 A1 6/2002 Rapaich

(Continued)

OTHER PUBLICATIONS

Hany Farid, Blind Inverse Gamma Correction, Oct. 2001, IEEE
Transactions on Image Processing, vol. 10, No. 10.*

(Continued)

Primary Examiner—Hugh Jones

Assistant Examiner—Suzanne Lo

(74) *Attorney, Agent, or Firm*—Fish & Richardson P.C.

(57)

ABSTRACT

Methods and apparatus, including computer program products, for modelling a non-linear transfer function with a power law function. A transfer function is received. Iteratively, until a termination flag is set, a first power law function is received, an auxiliary function is generated from the transfer function and local differences between the transfer function and the first power law function, a second power law function is fitted to the auxiliary function, a modelling error is calculated from the second power law function and the transfer function, and the termination flag is set when the modelling error is less than a predetermined value.

47 Claims, 5 Drawing Sheets

